



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
20.11.2024 Bulletin 2024/47

(43) Date of publication A2:
31.07.2024 Bulletin 2024/31

(21) Application number: **24182402.8**

(22) Date of filing: **28.03.2019**

(51) International Patent Classification (IPC):
G11C 13/00 (2006.01) **H10N 70/00** (2023.01)
H10B 63/00 (2023.01)

(52) Cooperative Patent Classification (CPC):
G11C 13/0004; H10B 63/82; H10B 63/84;
G11C 2213/71; G11C 2213/77; H10N 70/011;
H10N 70/063; H10N 70/066; H10N 70/20;
H10N 70/231; H10N 70/245; H10N 70/826;
H10N 70/882; H10N 70/8825

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR

(30) Priority: **24.04.2018 US 201815961547**

(62) Document number(s) of the earlier application(s) in
accordance with Art. 76 EPC:
19791688.5 / 3 785 308

(71) Applicant: **MICRON TECHNOLOGY, INC.**
Boise, Idaho 83716 (US)

(72) Inventors:
• **CASTRO, Hernan A**
Boise, 83716-9632 (US)
• **TANG, Stephen H.**
Boise, 83716-9632 (US)
• **RUSSELL, Stephen W.**
Boise, 83716-9632 (US)

(74) Representative: **Marks & Clerk LLP**
15 Fetter Lane
London EC4A 1BW (GB)

(54) **CROSS-POINT MEMORY ARRAY AND RELATED FABRICATION TECHNIQUES**

(57) Methods and apparatuses for a cross-point memory array and related fabrication techniques are described. The fabrication techniques described herein may facilitate concurrently building two or more decks of memory cells disposed in a cross-point architecture. Each deck of memory cells may include a plurality of first access lines (e.g., word lines), a plurality of second access lines (e.g., bit lines), and a memory component at each topological intersection of a first access line and a second access line. The fabrication technique may use a pattern of vias formed at a top layer of a composite stack, which may facilitate building a 3D memory array within the composite stack while using a reduced number of processing steps. The fabrication techniques may also be suitable for forming a socket region where the 3D memory array may be coupled with other components of a memory device.

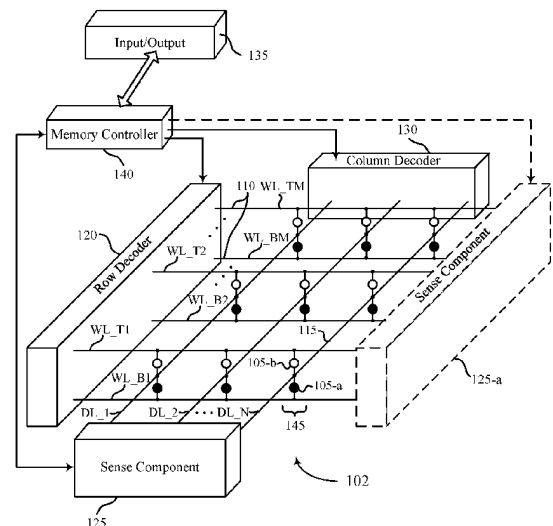


FIG. 1



EUROPEAN SEARCH REPORT

Application Number

EP 24 18 2402

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EPO FORM 1503 03.82 (P04C01)

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The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 9 October 2024	Examiner Angermeier, Detlef
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

**ANNEX TO THE EUROPEAN SEARCH REPORT
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